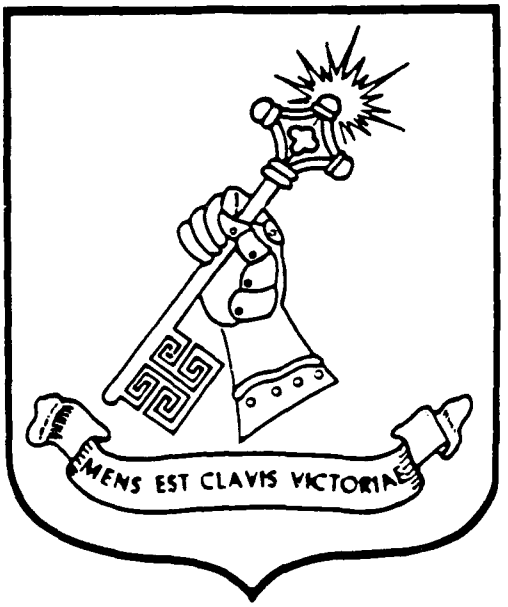
JOINT TASK FORCE COMMAND, CONTROL, AND COMMUNICATIONS: HAVE WE IMPROVED?

A Monograph

by

Major Daniel J. Gilbert

Infantry



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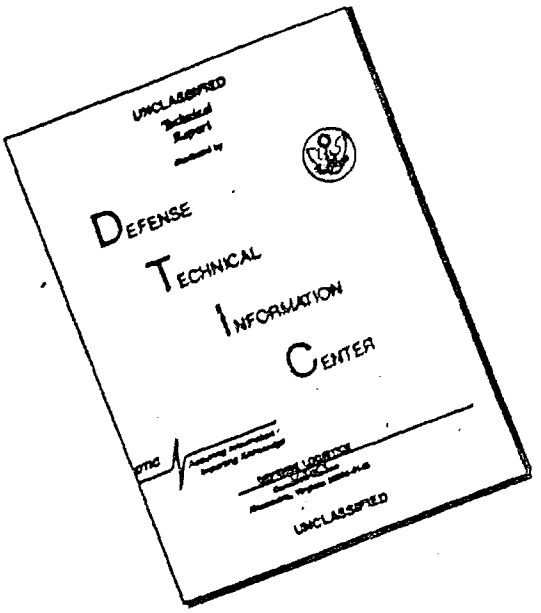

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Today's Joint Task Force(JTF) Commander is the single uniformed military service commander most likely to be concerned with prosecuting joint military operations during the decade of the nineties. His ability to successfully command and control assigned forces will certainly be a key factor in determining the outcome of any such future operations. What are the JTF commanders' command, control, and communications (C3) capabilities? Is today's JTF commander better able to command and control his force than those who executed joint operations since the end of the Vietnam war? Have previously identified C3 problems been fixed and if not, why not? Will his C3 capabilities be adequate? The purpose of this monograph is to answer these questions. The paper begins with a few basic definitions to lay the groundwork for the discussion of joint C3 that follows. It continues with a comparative analysis of C3 at the operational level of war using four joint combat operations conducted by U.S. military forces since the end of Vietnam. These operations are: 1) The 1975 Mayaguez Incident, 2)The 1980 Iranian Hostage Rescue Attempt, 3) The 1983 Grenada Invasion, and

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4) The 1986 Libya Raid. Evidence is presented from periodicals, books, theses, government reports and JCS manuals. Finally, a review of applicable emerging JTF C3 doctrine is conducted.

The paper concludes that: 1)an absence of operational level thinking existed in all four of the joint operations examined; 2)the JCS deliberate and crisis action planning systems are no substitute for joint planning by operational and tactical level warfighters; 3)the required joint warfighting doctrine has not yet been written; 4) over the eleven year period encompassed by the four joint operations cited, the same joint C3 problems kept reappearing; 5)the reappearing problems were not fixed because of the services refusal to accept substantial unification below the Unified/Specified command level and the absence of aggreement over command; 6)today's JTF commanders' joint C3 capabilities are still inadequate. The paper implies that the creation of one or two experimental JTF's would provide the laboratory to learn about joint operations, doctrine, and staffing requirements.

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ABSTRACT

JOINT TASK FORCE COMMAND, CONTROL, & COMMUNICATIONS: HAVE WE IMPROVED? by MAJ Daniel J. Gilbert, USA, 55 pages.

Today's Joint Task Force(JTF) Commander is the single uniformed military service commander most likely to be concerned with prosecuting joint military operations during the decade of the nineties. His ability to successfully command and control assigned forces will certainly be a key factor in determining the outcome of any such future operations. What are the JTF commanders' command, control, and communications(C3) capabilities? Is today's JTF commander better able to command and control his force than those who executed joint operations since the end of the Vietnam war? Have previously identified C3 problems been fixed and if not, why not? Will his C3 capabilities be adequate? The purpose of this monograph is to answer these questions.

The paper begins with a few basic definitions to lay the groundwork for the discussion of joint C3 that follows. It continues with a comparative analysis of C3 at the operational level of war using four joint combat operations conducted by U.S. military forces since the end of Vietnam. These operations are: 1)The 1975 Mayaguez Incident, 2)The 1980 Iranian Hostage Rescue Attempt, 3)The 1983 Grenada Invasion, and 4)The 1986 Libya Raid. Evidence is presented from periodicals, books, theses, government reports and JCS manuals. Finally, a review of applicable emerging JTF C3 doctrine is conducted.

The paper concludes that: 1)an absence of operational level thinking existed in all four of the joint operations examined; 2)the JCS deliberate and crisis action planning systems are no substitute for joint planning by operational and tactical level warfighters; 3)the required joint warfighting doctrine has not yet been written; 4)over the eleven year period encompassed by the four joint operations cited, the same joint C3 problems kept reappearing; 5)the reappearing problems were not fixed because of the services refusal to accept substantial unification below the Unified/Specified command level and the absence of aggreement over command relationships; especially concerning unity of command; 6)today's JTF commander has somewhat better joint C3 capabilities than the commanders who conducted the four examples; and 7)today's JTF commanders' joint C3 capabilities are still inadequate. The paper implies that the creation of one or two experimental JTF's would provide the laboratory to learn about joint operations, doctrine, and staffing requirements.

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INTRODUCTION

During the last several years the ability of U.S. military forces to carry out successful joint service operations has become a hot topic of debate. The rescue of the crew of the Mayaguez in Cambodia in 1975, the [illegible] Iranian hostage rescue mission in 1980, and Operation Urgent Fury in Grenada in 1983 have led the American press, public and Congress to question if the uniformed services are capable of conducting successful combat operations. Critics and military reformers have leveled their jabs, their votes, and even legislation at the Department of Defense, the Joint Chiefs of Staff (JCS), and the uniformed services in attempts to create change. Much has been written regarding the JCS and the unified and specified commands. These headquarters and staffs are closely monitored by many watch dogs. But what of the Joint Task Force(JTF)? It is the organization that in many scenarios must plan and execute the joint operations that will determine military success or failure. What then are the JTF commanders' command, control, and communications (C3) capabilities? Is he better able to command and control his forces today than those who executed joint operations since the end of the Vietnam war? Have previously identified C3 problems been fixed and if not, why not? Will his C3 capabilities be adequate? The purpose of this monograph is to answer these questions.

The paper begins with a few basic definitions to lay the

groundwork for the discussion of joint C3 that follows. It continues with a comparative analysis of C3 at the operational level of war during four joint combat operations conducted by U.S. military forces since the end of Vietnam. These operations are: 1)The 1975 Mayaguez Incident, 2)The 1980 Iranian Hostage Rescue Attempt, 3)The 1983 Grenada Invasion, and 4)The 1986 Libya Raid. Evidence will be presented from periodicals, books, theses, government reports and JCS manuals. Classified after action reports were studied and unclassified portions of these reports are also used. Finally, a review of applicable emerging JTF C2 doctrine will be conducted to determine if it is workable. Logical conclusions and implications will follow the analysis.

The JTF commander is the single uniformed military service commander most likely to be concerned with prosecuting joint combat operations during the decade of the nineties. His ability to successfully command and control assigned forces will certainly be a key factor in determining the outcome of any such future operations.

DEFINITIONS

Some common definitions will form a basis from which to begin the analysis. The following terms will be defined for the purpose of this study: 1)operational level of war, 2)joint operations, 3)joint command, control and communications (C3), and 4)joint doctrine. Additionally, a yardstick for measuring the adequacy of C2 must be

established.

The operational level of war is defined as:

> **The level of war at which campaigns and major operations are planned, conducted, and sustained to accomplish strategic objectives within theaters or areas of operations. Activities at this level link tactics and strategy by establishing operational objectives needed to accomplish the strategic objectives, sequencing events to achieve the operational objectives, initiating actions, and applying resources to bring about and sustain these events. These activities imply a broader dimension of time or space than do tactics; they ensure the logistics and administrative support of tactical forces, and provide the means by which tactical successes are exploited to achieve strategic objectives.1**

Major Duane E. Byrd explains in his 1986 monograph that "The major function of the operational level of war is to sequence tactical activities so that they combine to achieve the aims of strategy."2 Joint operations are "...operations...in which elements of more than one service of the same nation participate."3 Joint C2 is "the exercise of authority and direction by a properly designated (joint) commander over assigned forces in the accomplishment of the mission", and the "method or means of conveying information of any kind from one person or place to another"4 that the commander and his staff use to exercise this authority. Joint doctrine is a set of:

> **Fundamental principles that guide the employment of forces of two or more Services of the same nation in coordinated action toward a common objective. It is ratified by all four Services and may be promulgated by the Joint Chiefs of Staff.5**

Finally, criterian for evaluating an adequate C2 system must be established. According to FM 100-5 "Successful strategy

achieves national and alliance political aims at the lowest possible cost in lives and treasure."6 It also states that:

> The ultimate measure of command and control effectiveness is whether the force functions more effectively and more quickly than the enemy.7

It is logical to conclude that criterian for measuring a C3 system should entertain both of these ideas from FM 100-5. Therefore, this paper will consider a C3 system to be adequate if it does both. A C3 system that needlessly exposes human lives, or has the potential to do so, even though it may allow the force to function more effectively and more quickly than the enemy, is not adequate.

THE MAYAGUEZ INCIDENT

> Have been fired upon and boarded by Cambodian armed forces at nine degrees 48 minutes north/ 102 degrees 53 minutes east. Ship is being towed to unknown Cambodian port.8

This Mayday call was dispatched by the SS Mayaguez on 12 May 1975, received by the American merchantman's regional office in Djakarta, Indonesia and passed to Washington through U.S. State Department channels. The National Military Command Center was informed at 05:12 that the Mayaguez had been:

> ...fired on, boarded, and seized in international waters at about 21 minutes past midnight, 12 May, while traversing a standard sealane and trade route.9

Over the next four days President Ford would consult with the National Security Council on four occasions. His efforts to free the crew and the ship were initially conducted through diplomatic channels. However, memories of the seizure of the

USS Pueblo by North Korea in 1968 and the recent U.S. withdrawal from South Vietnam and Cambodia were on his mind. He was concerned about international perceptions of U.S. resolve to respond to provocation. Accordingly, at the first of the NSC meetings he directed the Secretary of Defense to begin planning possible military contingency actions and the movement of forces into the theater of operations. On 14 May at 1650 hours he directed military operations to begin, with the objective of rescuing the crew and recovering the ship.

THE OPERATION

The rescue operation eventually involved a hastily assembled U.S. joint air-sea-land force. Air Force units were assembled from Thailand, Okinawa, Guam and the Philippines including fighter, reconnaissance, special operations, airlift, support, security police, and rotary wing squadrons. The Navy contributed an Orion P-3/4 patrol squadron, the escort destroyer USS Holt, the guided missile destroyer USS Wilson, and the USS Coral Sea Carrier Task Group. The Marine Corps provided a command group from III Marine Amphibious Force(MAF), an air contingency battalion landing team (BLT 2/9), and a reinforced rifle company from 1st Battalion, 4th Marines. These units came from Okinawa and the Phillipines. The Army provided a linguist, a U-21 aircraft and crew, and a rotary wing aviation unit. This joint force undertook combat operations that eventually recovered the SS Mayaguez and her crew. The cost in lives and "treasure" was high. U.S. casualities totaled 15 killed

in action(KIA), 23 non-battle related deaths, 3 missing in action(MIA) and presumed dead, and 50 wounded in action(WIA). Four helicopters were destroyed, four were severely damaged and six received minor damage. Six fixed wing aircraft were also damaged. The cost of the action in dollars is estimated by one source at 9.5 million.10

C3 ANALYSIS

The Plan

The plan was not without problems. It involved two separate assault forces, one to seize the ship and the other to land on Koh Tang island (see map 1) to rescue the crew. Air Force helicopters would transport a reinforced platoon of Marines, an explosive ordnance team, and an Army linguist from an American base at U Taphao, Thailand to the USS Holt located near Koh Tang island. The USS Holt would pull along side the Mayaguez and the Marines would storm aboard. The second assault force of some 180 Marines would land on Koh Tang island to secure landing zones and to begin clearing the island and searching for the crew of the Mayaguez. The helicopters would then return to U Taphao and pick up another 180-250 Marines to reinforce the first group on Koh Tang. Additional reinforcements could bring the Marine ground force up to a strength of about 1100 Marines if necessary. The Koh Tang assault force would be supported with naval gun fire and close air support from both Air Force and Navy aircraft. Air strikes to be carried out by the USS Coral Sea air group were also planned against a fuel storage area in the port of

Kompong Som, the Ream Naval Base and the Ream Airfield to prevent Cambodian reinforcements from reaching Koh Tang. Once the crew had been located, helicopters would be called in to fly them and their rescue force to safety.

The most significant problem with the plan was that it was based on little actual knowledge of the enemy situation. It was estimated that there were 20-25 Khmer Rouge soldiers on Koh Tang armed with nothing more than small arms. In fact, the number was closer to 250. They were armed with heavy machine guns, anti-tank rockets, grenade launchers, and mortars. Air Force and Navy aircraft had been fired on continually for the last two days from this island by heavy machine guns in the anti-aircraft role and had reported these enemy air defense fires to their controlling headquarters. Furthermore, although the objective of the mission was the rescue of the crew, their location was not known. It was assumed that Koh Tang Island was a likely place for the crew to be. But, there was no evidence to establish that the crew was in fact there. Because the crew's positive location was unknown, there were no air and naval fires in support of the airmobile operation. They were placed on-call.

The plan to reinforce the first wave of Marines into Koh Tang island was also deficient. The same helicopters that delivered the first wave of Marines to Koh Tang were to be used to fly in the subsequent reinforcements. The turn-around time from Koh Tang to U Taphao and back to Koh Tang was four and one-half hours. If the first wave ran into trouble

it would be a long wait for reinforcements. If the helicopters ran into problems there was no other way to reinforce, resupply, or withdraw the ground force. The first Marines ashore would be left to fend for themselves.

The airstrikes against the mainland of Cambodia appear to have had little military significance. There was little chance that any Cambodian forces were capable of influencing the action at Koh Tang. These strikes were ordered by the NCA probably for political reasons.

It is unclear how the whole plan was put together. Various headquarters were involved in the planning process with overall responsibility for bringing the whole plan together lying with CINCPAC in Hawaii. The III MAF command group (an ad hoc group consisting of five Marine officers) was charged with the planning of the actual assault phase, but was not responsible for the naval or air force portions of the plan. Commander USSAG/7AF was involved in planning for 7AF units and reviewed and approved the III MAF plans. ComDesRon 31 was responsible for navy planning for actions by the USS Holt and later the USS Wilson. The USS Coral Sea Task Group prepared its plans and submitted them to the Commander 7th Fleet for approval. Thus, the place where the plans finally came together under a truly unified commander was in Hawaii. No single commander closer to the scene of the action had authority for planning the entire operation.

Command and Control

The command and control arrangements for this large,

complicated, and very "joint" operation were faulty. The chain of command at the national level was clear. From the National Command Authority(NCA) orders went to CINCPAC who had unified command of the Navy's Seventh Fleet and Pacific Fleet Marine Forces, the Pacific Air Forces, and the U.S. Support Activities Group(USSAG)/Seventh Air Force. From here the chain of command became cloudy. CINCPAC had overall planning and operational responsibility. He exercised control of the operation through CINCPAC FLT and 7th Fleet for the Navy and through United States Support Activities Group(USSAG)/7th Air Force(AF) at Nakhom Phenom RTAFB, Thailand for the Air Force. CINCPAC had to coordinate the relationships between Guam-and Thai-stationed Air Force units, Okinawa-and Philippines-stationed Air Force units and the naval ships located in the Western Pacific. Lieutenant General John J. Burns, the commander of USSAG/7th AF was designated the on-scene commander. Marine Colonel John M. Johnson was appointed the commander of the III MAF ground assault forces. The Navy commander was Captain D. P. Roane, Commander Destroyer Squadron 23(ComDesRon 23) embarked aboard the USS Holt.[11]

The effect of this command arrangement was to put nobody in overall command at the scene of the action, Koh Tang Island. The commander who was designated as the "on scene" commander was located in his headquarters at Nakhom Phenom in Thailand. The ground force commander was located 195 miles from Koh Tang at U Taphao, Thailand. The commander USSAG

exercised operational control of the Marine forces and USAF tactical aircraft through its airborne mission commander(AMC) located 90 miles from Koh Tang in an Airborne Battlefield Command and Control Center(ABCCC). ComDesRon 23 exercised command of surface naval forces from the USS Holt. Apparently command of naval aviation units remained with their parent organization; USS Coral Sea Air Group or Naval Patrol Squadron 4 at Cubi Point Naval Air Station in the Philippines. A Joint Task Force was not activated. Thus, airspace and fires were never controlled by a single, clearly designated commander.

Communications

Communications between the various headquarters was provided by dedicated secure voice and teletype circuits. A secure conference line kept the National Military Command Center in continuous contact with each level of command down to the on-scene commander. HF radio linked the ABCCC and USSAG/7AF. However, there were complaints by several commanders that there were not enough secure lines available to the tactical level planners and that the ones that were available were often poorly positioned. Compatibility of radios between Navy tactical aircraft and Marine ground units was a problem. Navy aircraft used UHF radios and Marine ground units relied primarily on VHF radios. The BLT did carry one UHF radio to control Navy close air support strikes but it was lost when the first helicopter was shot down during the initial insertion. Secure radio equipment at the

tactical unit level was almost non-existent. In sum it would appear that vertical communications was at least adequate, but lateral communications, especially between units from different service components was sketchy at best. Face to face meetings between key commanders took place rarely if at all.12

THE IRANIAN HOSTAGE RESCUE ATTEMPT

In November 1979 the American Embassy in Tehran was seized by a group of Iranian Revolutionary Guards. These religious fanatics took the embassy staff hostage in defiance of international law. President Carter was determined to use diplomatic means to gain the safe return of the American diplomats, but he recognized that military force might be eventually necessary. Shortly after the embassy was seized he directed the Secretary of Defense to begin preparation of military contingency plans.

THE OPERATION

The JCS did not initially consider a rescue operation to be feasible. Tehran was located too far inside the Iranian border. Any rescue force would have to penetrate Iranian airspace, fly some 750 miles to Tehran, land , overpower the guards and than make good their escape. If the element of surprise was lost the mission would most certainly fail. No single service had the capability to undertake the mission and there was no organized joint military force prepared to conduct such an operation. However, as the weeks went by things began to fall into place. An ad hoc Joint Task

Force(JTF) was formed. The necessary intelligence was gathered, a plan was developed and the rescue force trained. The JTF was eventually assigned tactical units from all four services. The Army contribution was a counter-terrorist unit named DELTA, and a contingent of Rangers. The Air Force provided a special operations squadron, tactical and strategic airlift and tanker support. The Navy provided helicopters from Helicopter Mine-Countermeasures Squadron 16, and helicopter pilots. The USS Coral Sea, USS Nimitz and their supporting battle group would be "In Support Of" the JTF. Marine Corps helicopter pilots eventually replaced most of the Navy pilots initially assigned. By April the JCS felt good enough about the plan to approve it and recommend to the President that it be conducted. At 16:57 hours (Eastern Standard Time) on the 24th of April 1980 President Carter aborted the mission. He had been informed that there were not enough flyable helicopters to continue. During the withdrawal a helicopter collided with a C-130. The cost in lives was eight. The cost in "treasure" was that of at least seven helicopters left in Iran. The cost in embarassment, humiliation and propaganda was immense.

C3 ANALYSIS

The Plan

The rescue plan called for the ground assault force to be transported by C-130 aircraft from Egypt to Oman and then to a desert landing site, code named Desert One, some 540 miles inside Iran (see Map 2). Eight RH-53D Sea Stallion

helicopters would launch from the USS Nimitz in the Persian Gulf and rendezvous with the assault force in the desert. The helicopters would refuel from "blivets" carried to Desert One by three of the C-130 aircraft, take the assault force aboard and continue on to a second landing site named Desert Two. An advance party had been infiltrated into Tehran some days ahead of time. Members of this team were to meet the assault force at Desert Two and provide the trucks to transport them from their daytime hide site, about 50 miles outside Tehran, to the embassy. The force would assault the embassy compound and the Foreign Affairs Ministry building, neutralize the guards and free the hostages. The helicopters would then be called in to extract the freed hostages and their rescuers. Meanwhile a force of Rangers would seize an airstrip at Manzariyeh about thirty-five miles from Tehran. The helicopters would fly to Manzariyeh where the whole force would be flown out of Iran by C-141 transports. The operation would be supported by AC-130H gunships and covered by naval aviation launched from the USS Coral Sea and the USS Nimitz.

The plan has been severely criticized by the press and many other writers. The Holloway Commission was less severe in its report, but it too found faults. "A larger helicopter force and better provisions for weather penetration would have increased the probability of mission success."13 Other weaknesses in the plan included the selection of the Desert One site which was too close to a road; lack of alternate

communications plans; the selection of Marine pilots to fly a type of mission for which they were not trained; and a poor plan for destroying the helicopters that were left behind.

Command and Control

The Holloway Commission was most critical of the command and control arrangements.

> **Command and control was excellent at the upper echelons, but became more tenuous and fragile at intermediate levels. Command relationships below COMJTF were not clearly emphasized in some cases and were susceptible to misunderstandings under pressure.14**

The Holloway Commission strongly felt that the decision to form an ad hoc JTF, rather than use an existing JCS Concept Plan (CONPLAN), disrupted unity of command and cohesive effort; thus, aggravating the organization's command and control. Other command and control issues included the CI arrangements at Desert One where there were problems identifying who was in charge. Col Charlie Beckwith (USA) was in command of the ground assault force. Col James Kyle (USAF) was in command of the C-130 aircraft and was designated as "On Scene" commander. LTC Edward R. Seiffert (USMC) was helicopter flight commander. All were reporting directly to COMJTF, Major General James B. Vaught (USA), who was located at his command post in Egypt. The command structure during the preparation phases had been blurred further with the assignment of MG Philip G. Gast (USAF) as a consultant for flight crew training. Marine Col Charles H. Pitman was also assigned to "look after" helicopter crew

training and became the "de facto" commander of helicopters. Both officers were appointed as official members of the JTF just days prior to the mission being executed; MG Gast as the Deputy Commander JTF and Col Pitman as the Deputy Commander JTF for Helicopters. MG Gast was promoted to LTG prior to the mission and, thus, he actually outranked COMJTF during execution of the operation.

Operational Security (OPSEC) had been heavily emphasized throughout the planning and training of the mission and it too would create control problems during execution. OPSEC considerations would not allow a full dress rehearsal of the actions at Desert One. OPSEC was the rationale for not letting weathermen brief the helicopter pilots. OPSEC was the reason that the helicopter pilots did not recognize Col Beckwith or Col Kyle at Desert One. In fact OPSEC seemed to be the dominant consideration in most JTF decisions.

Communications

Communications from the NCA to COMJTF were adequate. Secure voice links were continually available. Vertical communications within the JTF were also adequate. SATCOM was the primary means. Lateral communications within the JTF relied primarily on SATCOM and when used appeared to work very well. Due to OPSEC concerns other lateral means of communication were not planned. The helicopters were not allowed to communicate between themselves or with Desert One. The helicopter flight commander had to contact Egypt with SATCOM to find out what the weather status was at Desert One.

The ground security force at Desert One could not talk directly to the aircraft sitting on the ground via radio due to incompatible equipment. There were some complaints about not having enough secure voice and data links between units and intelligence centers during the preparation phase in CONUS.15

The mission is best summarized with the following quote from LTC William M. Steele's 1984 National War College case study:

> ...the decision not to use an existing JTF, failure for independent plans review, and the ad hoc nature of the JTF planning process, training management and command and control unnecessarily complicated an already complex plan.16

THE GRENADA INVASION

By the late summer of 1983 the Provisional Revolutionary Government (PRG) of Grenada was split between two groups. One group was led by the Prime Minister Maurice Bishop and the other by the Deputy Prime Minister Bernard Coard. On 13 October 1983 Coard with the assistance of the People's Revolutionary Army (PRA) placed Bishop under house arrest. This action caused general strikes and unrest throughout the island and led to a move by the people that secured the release of Bishop on the 19th of October. The PRA moved immediately to re-arrest Bishop and in the process fired on a crowd of civilians. A short while later Bishop and seven of his supporters were put to death. A 24 hour curfew was imposed with notice that violaters would be shot on sight.

The United States government had been monitoring these

developments and was concerned for the safety of American citizens on the island. Most were students at the St. George's University Medical School. In his announcement to the world on 25 October President Reagan explained that there were other reasons for military intervention as well:

> ...of overriding importance, to protect innocent lives,...Americans whose personal safety is my paramount concern...Second, to forestall further chaos...And third, to assist in the restoration of conditions of law and order of governmental institutions to the island of Grenada...17

THE OPERATION

Initially conceived by the JCS as a non-combatant evacuation the mission quickly changed when the NCA enlarged the scope of the mission to include "a neutralization of the Grenadian army and militia."18 This made a single service action by the Navy questionable. Additional forces would be required to provide the desired force ratio and special capabilities to ensure success of the operation. Thus, a joint operation was planned. The Army contributed Delta Force, two Ranger battalions, TF 160, other elements of the 1st Special Operations Command(SOCOM) and elements of the 82nd Airborne Division(Abn Div). The Air Force contributes tactical and strategic airlift, tactical fighter support, the 1st Special Operations Wing(SOW), and tanker support. The Navy contributed Task Force 124, consisting of the helicopter carrier USS Guam and four landing ships of Amphibious Squadron Four (PHIBRON FOUR); and the USS Independence Carrier Battle Group. The Marine Corps added the 22nd MAU,

embarked aboard PHIBRON FOUR which consisted of a Battalion Landing Team 2/8, Marine Medium Helicopter Squadron 261(HMM-261), and MAU Service Support Group 22(MSSG 22).

A token force from the Caribbean Peacekeeping Force (CPF) actually made this a combined operation as well. Some 260 military and police personnel from Jamaica and Barbados eventually participated.

The joint force successfully completed its mission but the cost was not cheap. U.S. casualties included 19 dead, 115 WIA, and 28 nonhostile injuries. Four helicopters were destroyed, one was lightly damaged, and four more were severely damaged.19

C3 ANALYSIS

The Plan

The plan envisioned simultaneous assaults on both of the islands airfields (see Map 3). The Marine BLT would assault the Pearls airport and Grenville area on the north end of the island while the Ranger battalions would assault the Point Salines airport on the south end of the island. Most enemy positions and the two known American student locations were in the south end of the island, but both airfields needed to be controlled to prevent interference by Cuban forces. Reinforcements from the 82nd Airborne Division would airland at Point Salines once the airfield was controlled by the Ranger assault force. The Marine force would clear the northern half of the island and the Army force would clear the southern half of the island and evacuate the students.

The Marine force prepared to conduct a combination amphibious and airmobile operation. The Army force prepared to conduct an airborne and/or airland operation. Prior to the main assault being conducted several special operations would be performed by a combination of Army, Air Force, and Navy special operations teams. They included operations to provide beach reconnaissance, to secure the Point Salines airfield, evacuate the Governor General, destroy the Radio Free Grenada transmitter, and take control of the island's electrical power plant. The operation would be supported by Air Force AC-130 gunships and an F-15 fighter wing. Naval gunfire and close air support would be provided by the USS Independence Carrier Battle Group.

Several problems with the plan stand out. Assumptions concerning the location and number of American students were wrong. If the students were in danger, then the plan was doomed to failure right from the start. A lack of intelligence concerning Cuban and Grenadian forces caused some surprises to the special operations forces and the Army forces in the south. Other problems concerned the lack of adequate communications, fire support, airspace control, and logistical plans. Finally, the U.S. Army Training and Doctrine Command Assessment study found:

> **Military planners concentrated on objectives for the assault units but gave little thought to what military forces would, or should, do after the coup de main, much less how they would help restore democratic government in Grenada. Despite the political importance of the Caribbean Pea ekeeping Force(CPF) in lending legitimacy to the invasion, planning for its employment and control was**

superficial...20

The study also found that planners had neglected other "politically explosive" issues such as pyschcological operations, civil affairs, prisoner of war operations, refugee operations, and what to do with Soviet bloc diplomats.

Command and Control

Poor plans and a lack of preparation time ensured that command and control of the operation would be flawed. The Commander of U.S. Atlantic Command (LANTCOM), Admiral Wesley MacDonald chose not to implement an existing CONPLAN or to use the existing JTF in the Caribbean. On 23 October, in the initial operation order, he officially appointed Vice Admiral Joseph Metcalf III, Commander Second Fleet, as COMJTF 120. This gave Admiral Metcalf less than 48 hours to put together a staff, produce a plan, and get to the area of operations. Not surprisingly this was an impossible task. He had been closely involved in the LANTCOM planning process and by default would not have time to do much but except the LANTCOM plan. His staff had little joint representation. It consisted almost entirely of naval and Marine officers from the staff of Second Fleet and LANTCOM with a token Air Force officer and no Army personnel at all. The Army rushed MG Norman Schwarzkopf to Norfolk to become the Deputy Commander of JTF 120. Likewise liaison officers from Fleet Marine Force Atlantic(FMFLANT), Military Airlift Command(MAC), SOCOM, 82nd Abn Div, the Ranger battalions, and the 22nd MAU

were hastily added.

No single ground commander nor unified air component commander were appointed. Thus, control and coordination ashore and in the air was inadequate especially in the areas of airspace management, intelligence collection and dissemination, fire control (air, ground, & naval), maneuver and communications. Admiral Metcalf's command consisted of TF 121 (the 82nd Abn Div), JTF 123 (the Joint Special Operations Command), and TF 124 (the Amphibious Squadron and 22nd MAU).21 There were effectively three separate commands controlling forces ashore: JTF 123, TF 124.2, and TF 121. Aircraft from several different commands were operating above Grenada: Naval aviation from the USS Independence, Marine rotary wing aviation from the USS Guam, Air Force and Army Special Operations Command aircraft (both rotary wing and fixed wing), and eventually Army rotary wing aviation from Point Salines airfield. The TRADOC assessment concluded that:

> The command structure for Urgent Fury violated ... the principle of unity of command...Despite compelling reasons to designate a single ground forces commander, CINCLANT and CJTF 120 maintained a system better designed to keep Service forces separate than to enable them to work together; combat operations were hampered accordingly.22

Communications

Poor communications was the hallmark of Operation Urgent Fury. Communications between the NCA, LANTCOM, and the JTF as usual were pretty good. Although there are reports that JTF 120's facilities became overloaded. Vertical and lateral

communications within the JTF were poor. SATCOM had to be relied upon and was quickly overloaded. Alternate means of communications were not planned. They were simply assumed to be available. The Army ground forces initially had no means of receiving hardcopy record traffic. The Rangers did not normally have that capability and the 82nd left their equipment at Ft. Bragg; a conscious decision on their part to lighten their load. JTF 120 never bothered to check to see if message traffic was being received by anyone on the island and, thus, firm control was never established. Equipment interoperability was a big problem. Army tactical radios would not mesh with Navy radios. Communications security equipment was not compatible between different services. Common operating procedures and call sign and frequency management were all difficult problems to solve in a conference room. They were impossible to solve in the middle of combat.23 The TRADOC assessment concluded that:

> Communications problems hampered coordination and control of joint forces. In part, the problems were technical in nature; equipment was not compatible or was unsatisfactory. The larger communication problem in URGENT FURY was a failure of command. Neither CINCLANT nor CJTF 120 established adequate communications for the force. Poor planning and incomplete liaison heightened combat risk associated with linkup of joint forces.24

THE LIBYA RAID

> A U.S. right-to-navigation exercise that brought together three aircraft carriers and 32 other ships and triggered 16 hours of violent confrontations with Libya ended quietly...25

This naval exercise in the Gulf of Sidra at the end of

March 1986 had seen some short but intense combat. Libya lost at least two patrol boats armed with surface-to-surface missiles. Fifty-six Libyans were killed and Libya's only SA-5 surface to air missile battery was taken out of action. Libya's leader, Col Muamar Qaddafi, was mad but he knew he did not have the military muscle to go toe-to-toe with the U.S. Sixth Fleet. He decided to use another weapon. The U.S. had been monitoring Qaddafi's support, funding, and training of terrorism for years. Obtaining proof that he had been directly responsible in any of the recent international terrorist attacks was a difficult task. With assistance from a British electronic listening post in Berlin, President Reagan was provided the "smoking gun" that he needed. On 5 April a bomb went off in a Berlin disco that was frequented by American servicemen. An American soldier was killed and others were injured.

> **Evidence implicating Libya consisted of communications between Tripoli and the Libyan People's Bureau in East Berlin that contained instructions to proceed on 4 April, and a confirmation of success on 5 April.26**

Within two days of the bombing President Reagan had decided to authorize a direct military strike against Libya.

THE OPERATION

The JCS was reasonably well prepared for the Libyan action. They had directed U.S. European Command(EUCOM) in January 1986 to draw up contingency plans for attacking targets in Libya. By the time of the April bombing in Berlin, Air Force and Navy planners had been working on

strike plans for several months. Neither service had initially foreseen the need for a joint operation. But details of the contingency planning had been leaked to the press and so the Libyans were going to be difficult to surprise. The Libyan air defense was improving every day. A successful strike of all five targets would require the joint efforts of Air Force and Navy units. Col Sam Westbrook USAF recalled:

> ..."That presented us at Lakenheath with significant problems...We didn't do much with the U.S. Navy. Our focus was on Central Europe. Navy and Air Force pilots began shuttling back and forth between Lakenheath and the carriers in the Mediterranean, trying to learn each other's ways of going to war."27

The operation eventually encompassed Air Force strategic bombers, tanker support, command and control and electronic warfare assets: 58 USAF aircraft in all. The Navy contributed a total of about 70 aircraft; escort fighters, all-weather and night attack fighter bombers, electronic warfare and airborne control and warning aircraft. These aircraft would be launched from the USS America and the USS Coral Sea making the total numbers of naval aircraft available at about 150. The two carrier task groups totaled about seventeen ships. The operation would involve more aircraft and combat ships than Britain employed during its entire campaign in the Falklands. In the early morning hours of 15 April (Tripoli time) the operation code named "El Dorado Canyon" caught Libya sleeping. But it still cost two Air Force servicemen their lives when one of the Air Force F-

111 aircraft crashed into the Mediterranean Sea.28

C3 ANALYSIS

The Plan

The plan called for five targets to be struck simultaneously. Libya would be split in half. Air Force bombers would take the west side of the Gulf of Sidra and Navy attack planes would be assigned the east side of the Gulf. Air Force F-111 bombers would attack three targets in the vicinity of Tripoli: 1)the military side of the Tripoli airfield, 2)the Al Azziziyah barracks, and 3)the Sidi Bilal port facility. Navy A-6E attack aircraft would bomb two targets in the vicinity of Benghazi: 1)the Benina airfield and 2)the Jamahariyah barracks (see Maps 4a & 4b). The strike would be preceded with an attack of the Libyan air defense system. Navy A-7 and F-18 aircraft would launch HARM and Shrike missiles at Libyan air defense radars. Air Force EF-111 and Navy EA-6B electronic warfare aircraft would blind surviving Libyan radars and jam key communications systems. Navy F-14 aircraft would provide air combat patrol and Navy E-2C aircraft would assist with airborne surveillance and control. Air Force aircraft would launch in the early evening hours of 14 April (London time) and fly approximately a 6400 mile round trip route down the Atlantic Ocean, through the Straits of Gibraltar to the coast of Libya and back. This distance would require four aeriel refuelings. KC-10 tankers would refuel the strike aircraft, while KC-135's

would refuel the KC-10's. About an hour after midnight Navy aircraft would launch from the carriers about 180 miles off the coast of Libya. Navy search and rescue aircraft would be available to recover downed crews.

According to one source the success of the operation can be attributed to "planning and precision".29 Indeed it is difficult to find things that were wrong with the plan in the limited number of open sources that are available. Most details of such a recent operation remain classified. However, there are some indicators in unclassified sources that could be cause for concern.

There apparently was no plan to provide protection to the "higly vulnerable" tankers. They were left to fend for themselves. Had the Libyans decided to launch interceptors against the tanker aircraft one can envision a disastrous consequence. Because of range to the tanker orbital area the F-14 cap was not capable of dealing with such a threat.

Why was a jury rigged KC-10 used as an airborne command and control platform rather than an E-3 Airborne Early Warning and Control System(AWACS)? The answer appears to be that wing level planners got overwhelmed and overlooked the advisability of using the E-3 until it was too late to change.

Why was it necessary to divide the country in half giving the Air Force one area of operations and the Navy another? COL Stephen E. Anno and LTC William E. Einspahr in their Air War College research report claim that "...the area

of action was divided because of interoperability difficulties...".30 They found that procedures, vernacular and terminology differ greatly. Col Sam Westbrook, the F-111 Wing Commander has since confirmed that the USAF in Europe and the US Navy "did not do much with each other". It is a good bet that common operating procedures had not been worked out. It takes time and then training to solve such problems and some of them probably weren't solved. A safe way to prevent problems between Air Force and Navy aircraft operating together is to separate them with a geograhic boundary or give them a specific aproach path in a precision time window. The problem with this solution is that it is a good one when everything goes according to plan. But if something unexpected happens, it may be necessary to commit aircraft from one service to assist another. These actions suggest that U.S. airpower may not be as flexible as it could be.

The next problem with the plan has more to do with the time available to prepare it than the plan itself. Is it surprising that the plan worked? After all the planners had approximately four months to prepare it and to train their crews. One wonders what might have happened if a joint operation had been planned in a time sensitive scnerario?

According to one author, the plan to put nine F-111's (three flights of three aircraft each; each flight separated by an several minutes) over the same target (Azzizivah barracks) was poor tactics and may have led to the loss of an

aircraft. These tactics were not the decision of the squadron or wing commanders or their planners. They had opted for no more than six planes on this particular target. General Charles Donnelly made the decision to raise the number of planes to nine. He based his decision on the mathmatical prediction of the desired probable damage to the target. This is perhaps an example of a Service Component Commander interfering with a tactical commanders' area of responsibility.31

Search and rescue plans were inadequate. The Air Force did not coordinate with the Navy for adequate search and rescue coverage over the distance of the entire operation. Specific procedures for contacting and working with the Navy search and rescue effort had not been worked out or exercised.

All of these planning concerns together lead one to wonder if the planning and preparation of the operation really was the work of a joint staff. It would appear that the planning was done by the tactical units of the USAF and US Navy; the F-111 Fighter Wing and the Sixth Fleet/Carrier Battle Group staffs. They received guidance and assistance from their respective service headquarters in Europe. The first truly joint staff to review the plans was probably EUCOM. At EUCOM the plans would be reviewed by the dual hatted service components wearing their "joint hat". In other words, they would be reviewing their own plans in the sense that they were responsible for the actions of

subordinate units of their respective service.

Command and Control

Hard evidence in open sources concerning the command and control relationships is also difficult to obtain. However, it is known that the operation was under the command of USEUCOM, commanded by General Bernard Rogers,USA. His deputy was General Richard Lawson,USAF. Other important players included General Charles Donnelly,USAF, Commander U.S. Air Forces Europe(USAFE) and the EUCOM Air Force Component Commander; Vice Admiral Frank Kelso,USN, Commander U.S. Sixth Fleet; Major General David Forgan,USAF, the Director of Operations for USAFE; and Colonel Sam Westbrook,USAF, Commander of the F-111 Wing.

Vice Admiral Kelso was named the joint commander for the operation. He had Air Force liaison officers attached to his staff afloat in the Mediterranean. He sent at least one Navy officer to fly with the Air Force Airborne command post in the lead KC-10 of the Air Force formation. MG Forgan accompanied Col Westbrook on board the KC-10 command post. The modified KC-10 was given charge of the Air Force resources while the USS America controlled the Navy aircraft. E-2C aircraft provided early warning and air control vectors. The F-111 aircraft reported by radio to Navy airborne control aircraft after dropping their bombs. After waiting an hour for the missing F-111, MG Forgan gave the order to the Air Force formation to return to England.

It would appear from the available evidence that command

and control of the operation was sound. It was established by providing a rigid and detailed plan. Whether unity of command was actually achieved at the operational level of war during this operation is still a valid question.

Communications

Communications appear to have been adequate but there were still some problems. During the preparation and planning phase the fixed installation secure facilities at the unit levels quickly became overloaded. Intelligence requirements overloaded the Intratheater Imagery Transmission System (IITS) and terminals were not always located where needed. Courier runs had to be established to overcome these problems.

Once in the air, radio became the primary means of communication. The operation was conducted under radio listening silence until the strike was initiated. Once the first bombs were dropped communications were probably limited to priority reporting and emergency messages. SATCOM played a big role linking the NCA, EUCOM, USAFE, Admiral Nelso, MG Forgan and F-111 Wing Headquarters in Lakenheath. The F-111 aircraft were equipped with a frequency hopping radio system called "Have Quick". The Navy does not use that system and neither did the Air Force tankers. The radios were installed in the tankers prior to the operation but were not available to the Navy.32

In sum the Libyan Raid was a success. However, one has to ask if the joint operation would have been as successful

should there have been less time available to plan, coordinate and train? Indeed, on short notice would it have been possible at all? It would appear that the success of this raid can be attributed to a long planning lead time and the lack of Libyan interference. According to Anno and Einspahr:

> ...the command and control and communications equipment and procedures were never really stressed during the raid; resistance outside the immediate area of attack was nonexistent.33

COMPARATIVE ANALYSIS

Trends: Problems & Improvements

A comparison of the four chosen examples of joint combat operations reveals the same or similar joint C3 problems at the operational level during each operation. These problems include: 1)the formation of ad hoc staffs and commands, 2)equipment interoperability between services, 3)poor staff planning skills (especially related to C3, airspace control, air defense, intelligence, fire support, and maneuver), 4)poor staff execution skills (especially during crisis/contingency operations), 5)a lack of unity of command, and 6)complicated command structures.

There have been improvements in joint C3 as well, but at a snail's pace. In fact a trend over the eleven years between the Mayaguez incident and the Libya Raid is evident. Between the Mayaguez and the Iranian crisis the strategic level communications systems were improved; both data and voice, primarily through the increased use of satellite

systems. The recognition that a joint command subordinate to the Unified command would have improved C3 during the Mayaguez rescue led to an increased awareness and future use of the JTF. The Iranian debacle led to recognition that an ad hoc JTF had created problems. But apparently this "lesson learned" was lost in the shuffle of effort to deal with joint special operations and counter-terrorism. The value of the JTF commander communicating via SATCOM with his subordinates as well as his superiors was also learned during the Iranian mission. The Grenada invasion seems to have resurfaced all the same problems. Many studies and after action reports highlighted the problems, but there appeared to be little or no real independent action by DOD to provide fixes. The Libyan raid saw some improvements. Awareness of the problems led to better staff coordination and some "work around" solutions.

Congressional legislation has spurred DOD action. The 1985 Staff Report to the Senate Armed Services Committee identified many of the problem areas and recommended corrective actions. This study led to the 1986 Goldwater/Nichols Act which enacted legislation to improve national security by increasing emphasis on joint issues and producing positive change in the joint community. The power of the unified commander has been enhanced by giving him increased input to the budget process. A move to better prepare JTF staffs to conduct operational level warfighting has also been made. JTF communication support packages have

been developed and pre-positioned. Some unified commands have created standing JTF staffs such as JTF Bravo in SOUTHCOM, and JTF 120 in LANTCOM. Others, such as Central Command (CENTCOM), have identified members of the unified staff to "stand up" as separate headquarters in the event it becomes necessary to activate and deploy a JTF to their Area of Responsibility(AOR). One can also see the beginning efforts to institutionalize joint officer education. Finally, the joint doctrine writers are hard at work.

REVIEW OF EMERGING JTF DOCTRINE

The joint warfighting doctrine that a JTF commander and staff require to conduct joint combat operations does not yet exist. JCS PUB 3-0, Doctrine For Joint Operations, Initial Draft, dated December 1988. JCS TEST PUB 5-00.2, Joint Task Force (JTF) Planning Guidance and Procedures, dated 15 June 1988, JCS PUB 6-0 (Working Draft) Doctrine For C3 Systems Support of Joint Operations, dated 1 August 1988 are initial documents that are philosophical and general in nature. These documents define terminology, establish policy, assign responsibilities, and describe C3 organizations and functions. In broad terms they describe what to do and who should do it. They do not provide the detailed and specific techniques, procedures and mechanisms necessary for the JTF staff to determine how to execute joint combat operations. Nor do they provide specific guidance for staffing or equipping a JTF. The Joint Task Force Planning Guidance and Procedures manual is really more a list of questions (perhaps

issues) that a JTF commander and his staff should consider. However, no answers to these questions are provided. This boils down to having officially recognized joint C3 problems without providing the necessary solutions. The joint communications doctrine is available for the JTF in procedural form. The following documents contain the detailed communications and electronics techniques and procedures necessary to deploy and sustain a JTF: JCS Pub 6-03.1, Joint Communications System Architecture and Management Procedures; JCEOIs; Joint Communications Support Element (JCSE) Architecture; Annex K of the appropriate OPLAN, the Joint Connectivity Handbook and JTC3A Handbook 8000. JTF J-6's will have to pull all of this doctrine together in Annex K of the JTF OPLAN to operate effectively.

Joint tactical communications doctrine is not yet written. A completion date for the JCS Pub 3.56 series of manuals (Tactical C3 Procedures for Joint Operations) does not appear in the Joint Doctrine Master Plan. Since the writing of this series is taking a low priority, time to completion can probably be measured in years rather than months.

In summary, the creation of JTF C3 doctrine has begun. The reappearing C3 problems that were identified in this paper's combat examples have been recognized; including the lack of appropriate doctrine. The initial theoretical underpinning has been published. Most of the "how to" procedural material is not yet available.

CONCLUSIONS

An absence of operational level thinking in all four of the selected combat examples can be identified. The NCA clearly defined strategic aims in all four operations. Good linkage between the strategic and operational levels of war existed. There did not appear to be much confusion concerning the desired end states. However, the same cannot be said for linkage of the operational and tactical levels of war. Poor planning and execution skills at the operational level have been salvaged by skilled tactical commanders and staffs and well trained individual soldiers, airmen, sailors, and marines. The JOS deliberate and crisis action planning systems do not substitute for joint planning by operational and tactical level warfighters. The JOS planning systems specify and communicate strategic level goals, identify and assign available forces, and allocate and manage transportation assets to get forces into the theater of operations. Operational level commanders and their staffs link tactical means (tactical victories) to strategic ends (political goals) by providing the operational ways (unified joint warfighting plans and execution of those plans . In other words just getting there is not enough. Somebody has to tie together all the various tactical units with a unified plan for combat actions. This plan must have a single/unified objective, provide required administrative and logistical support and be executed by a single/unified commander and his staff.

The lack of effective joint warfighting doctrine observed during the first three combat examples cited caused Congress to direct the JCS to develop and publish new doctrine. The C2 doctrine required for the JTF to conduct joint warfighting does not yet exist. It will be at least several years in development; maybe longer.

Over a period of eleven years the same joint C2 problems kept reappearing. Why haven't they been fixed? According to a 1985 Staff Report to the Armed Services Committee:

> ...there are two basic causes of the problem of insufficient unification within the unified commands: (1) the refusal of the Services to accept substantial unification within the unified commands, and (2) absence of agreement on appropriate command relationships, expecially concerning the principle of unity of command.34

Corrective actions are also bogged down by: a battle for resources, service parochialism,35 and what LTG Cushman calls the "Wall of the Component".36 The Department of Defense, the JCS, and the Services are just not capable of changing the status quo to produce truly joint warfighting organizations. Otherwise they would already have done so. Congress will have to continue to legislate change.

Today's JTF commander is somewhat better able to command and control his force than those U.S. commanders who executed the four joint military operations described in this paper. However, his C2 capabilities are still inadequate. Inadequate joint C2 at the operational level of war will continue to be measured in lives and "treasure," even when the force "functions more effectively and more quickly than

the enemy."

IMPLICATIONS

Until standing JTF headquarters are staffed, trained, and equipped to handle crisis, contingency and deliberate actions, we are bound to see similar problems in the future. None of the current JTF staffs are organized the same. They are for the most part focused on scenario or geographic specific contingencies that originate from planning assumptions that may or may not be valid. Most are little more than an ad hoc staff. These staffs may in fact be sufficient in a scenario such as the recent Persian Gulf Tanker Escort Operation where the JTF had weeks and perhaps months to work out SOP procedures before being put to a combat test. They may be sufficient in Central America where the JTF staff could have literally years to work out procedures. However, these hastily organized, narrowly focused staffs will not always be adequate. The evidence provided from the experiences of the Iranian Rescue Attempt and the Libyan Raid indicate that ad hoc, narrowly focused staffs lead to partial solutions even when there is an abundance of planning time. And what about time sensitive, crisis scenarios? The evidence presented in the Mayaguez Incident and the Grenada Invasion suggest the same conclusion can be made when planning time is short.

There are of course the nay-sayers. They will point out that a standing JTF staff was tried earlier as a part of the U.S. Readiness Command. It was never used; supposedly

because none of the Unified commanders wanted a JTF coming into their area to command and control "their" operation. They will point out that it is not possible to create a standing JTF for every conceivable crisis or contingency. Finally, they will add that no one really has the experience to know how best to staff and equip a JTF. All of these arguments have some validity. But we must do more than throw up our hands in frustration. Why not staff, equip, and train a couple of generic, standing JTF's as an experiment. Command post, field training and computer driven exercises similar to the U.S. Army's Battle Command Training Program would provide the laboratory to study joint operational warfighting at the operational level of war. This laboratory would then provide the experience from which doctrine could be evaluated, staffing documents developed and JTF commanders and staffs trained. As a unified military force, the U.S. uniformed services are not ready for the "audit of war'37. The same joint C3 problems observed in this paper will be experienced at the operational level of war during the next joint warfighting operation that the U.S. military conducts.

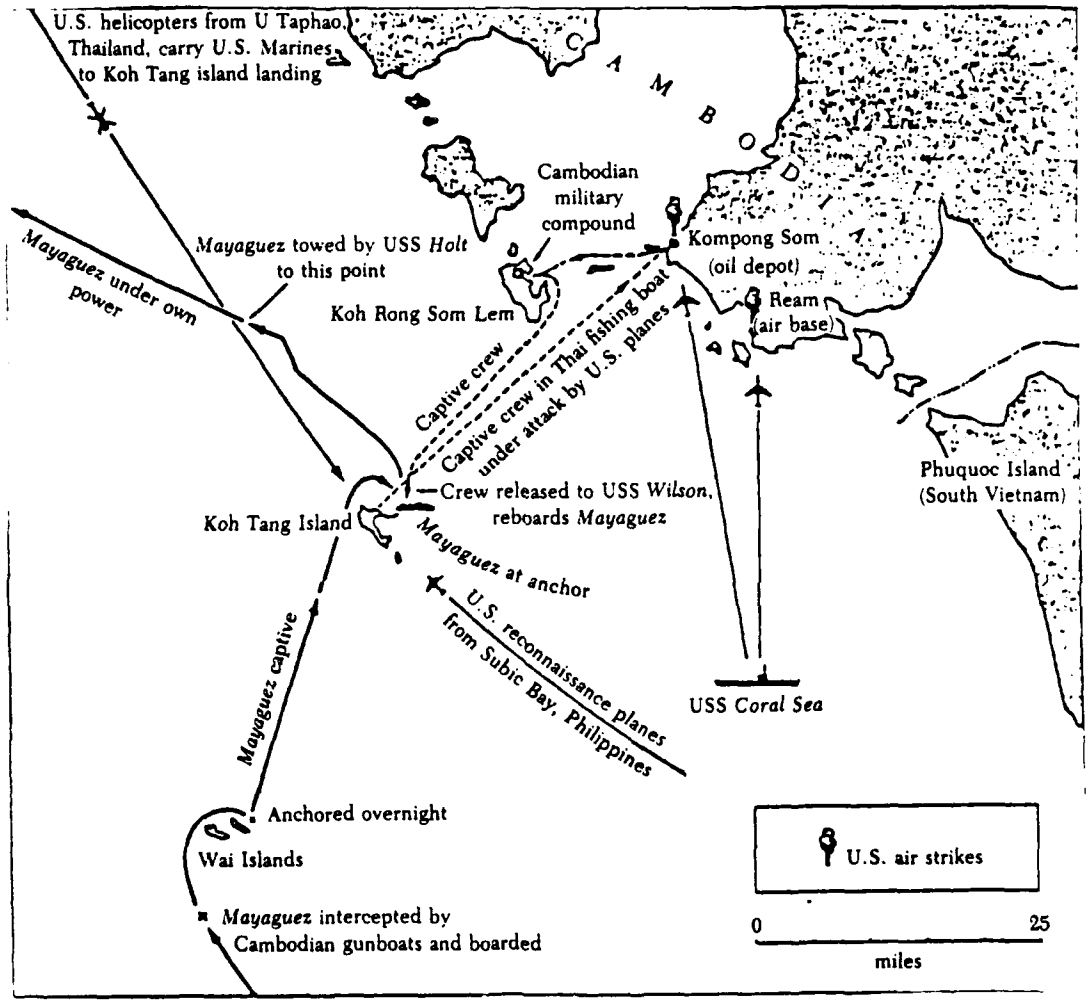
SUMMARY

This paper began with a few basic definitions to lay the groundwork for the discussion of joint C3 that followed. It continued with a comparative analysis of C3 at the operational level of war using four joint combat operations conducted by U.S. military forces since the end of Vietnam. Evidence was presented from periodicals, books, theses,

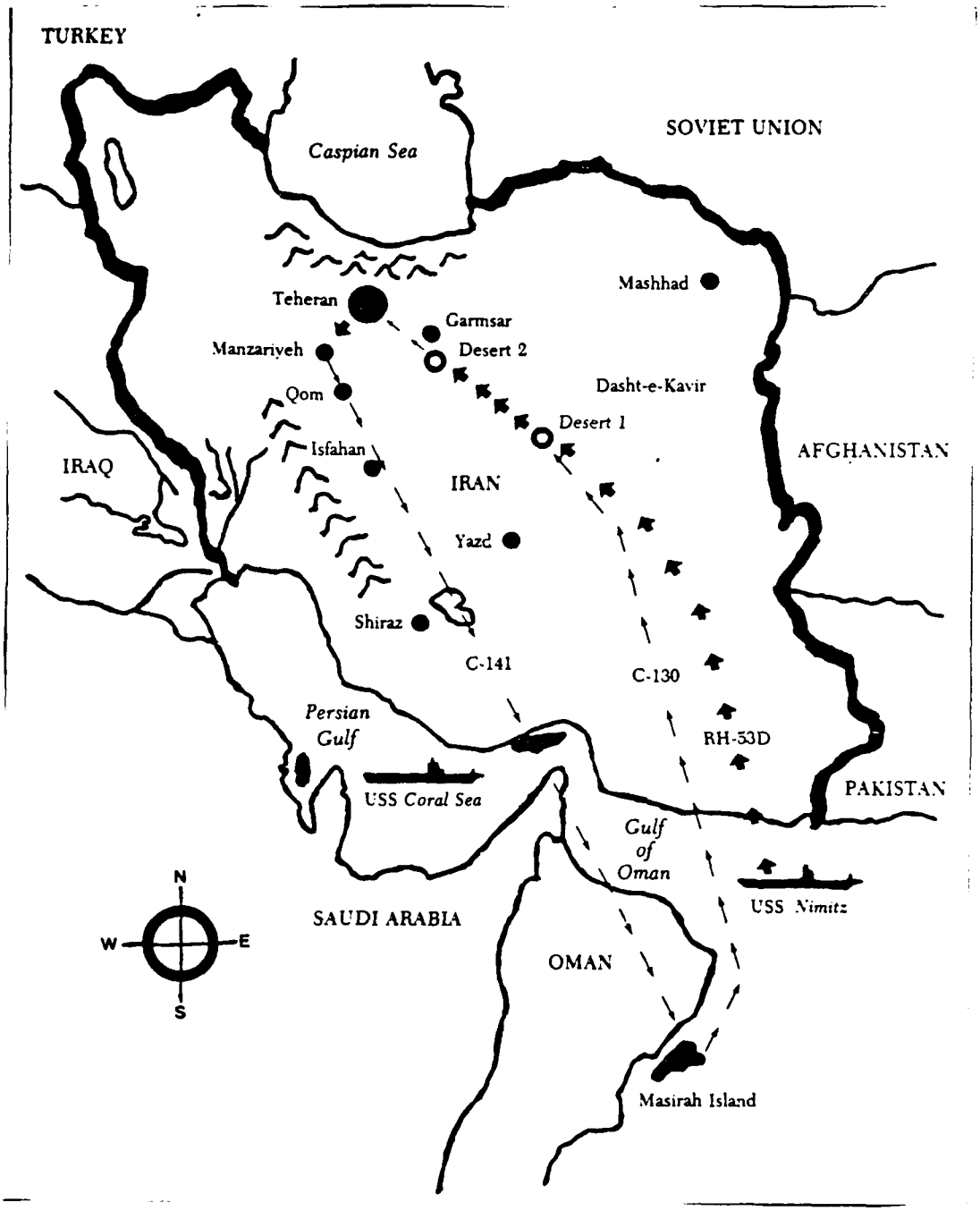
government reports and JCS manuals. Classified after action reports were studied and unclassified portions of these reports were also used. Finally, a review of applicable emerging JTF C3 doctrine was conducted. The paper looked at what C3 capabilities the JTF commander has today and if he is better able to command and control his force than the commanders in the examples. It identified continuing C2 problems and looked at why those problems consistently reappeared. Finally, it addressed the adequacy of the JTF commanders' C3 capabilities today. The paper concludes that: 1) an absence of operational level thinking existed in all four of the joint operations examined; 2) the JCS deliberate and crisis action planning systems are no substitute for joint planning by operational and tactical level warfighters; 3) the required joint warfighting doctrine has not yet been written; 4) over the eleven year period encompassed by the four joint operations cited, the same joint C3 problems kept reappearing; 5) the reappearing problems were not fixed because of the services refusal to accept substantial unification below the Unified/Specified command level and the absence of aggreement over command relationships; especially concerning unity of command; 6) today's JTF commander has somewhat better joint C3 capabilities than the commanders who conducted the four examples; and 7) today's JTF commanders' joint C2 capabilities are still inadequate. The paper implies that the creation of one or two experimental JTF's would provide the laboratory to learn about joint operations.

doctrine, and staffing requirements.

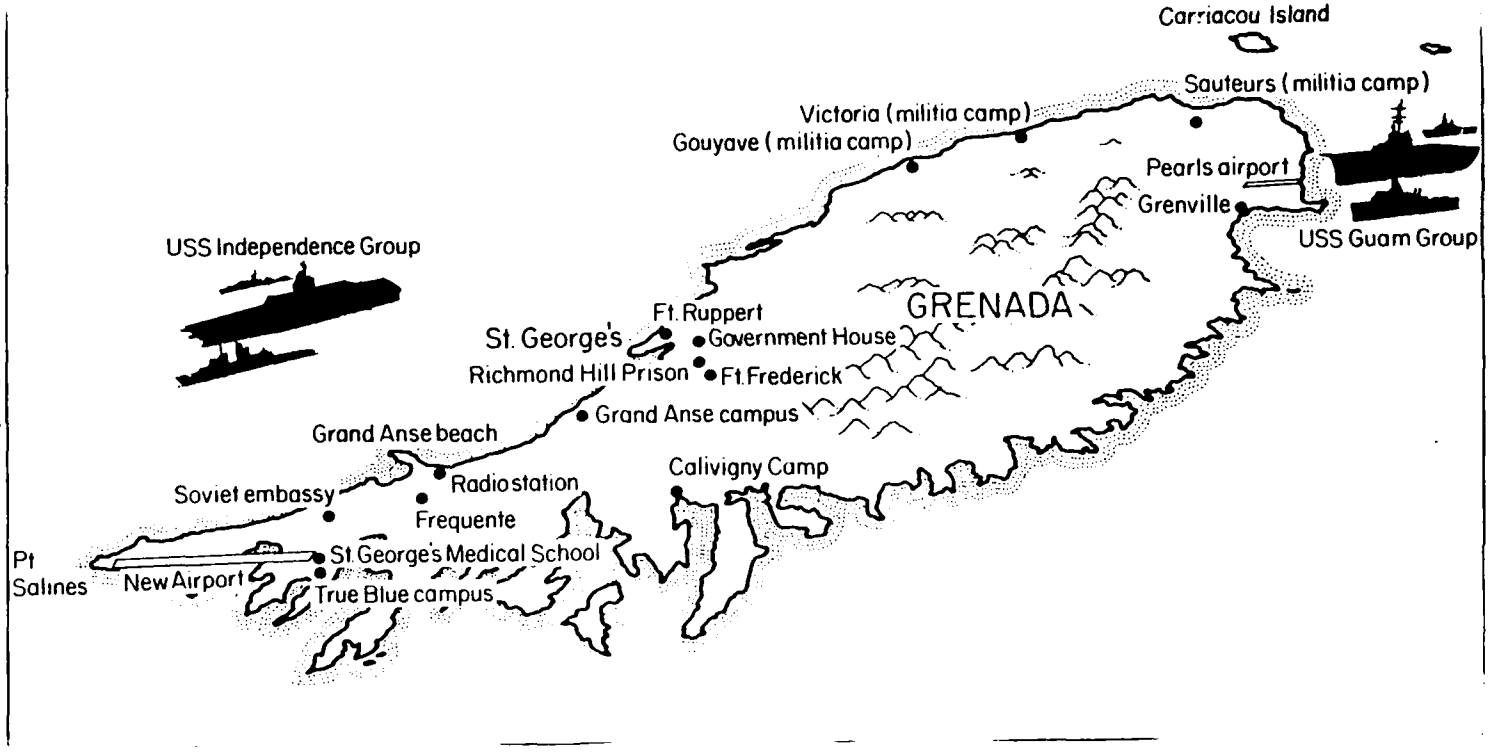
Today's Joint Task Force Commander has somewhat better C3 capabilities than those commanders who conducted the Mayaguez Rescue, the Iranian Rescue attempt, the invasion of Grenada, and the Libyan Raid. He is the single uniformed military service commander most likely to be concerned with prosecuting joint military operations during the decade of the nineties. His ability to successfully command and control assigned forces will certainly be a key factor in determining the outcome of any such future operations.



MAP 1
THE MAYAGUEZ RESCUE MISSION38

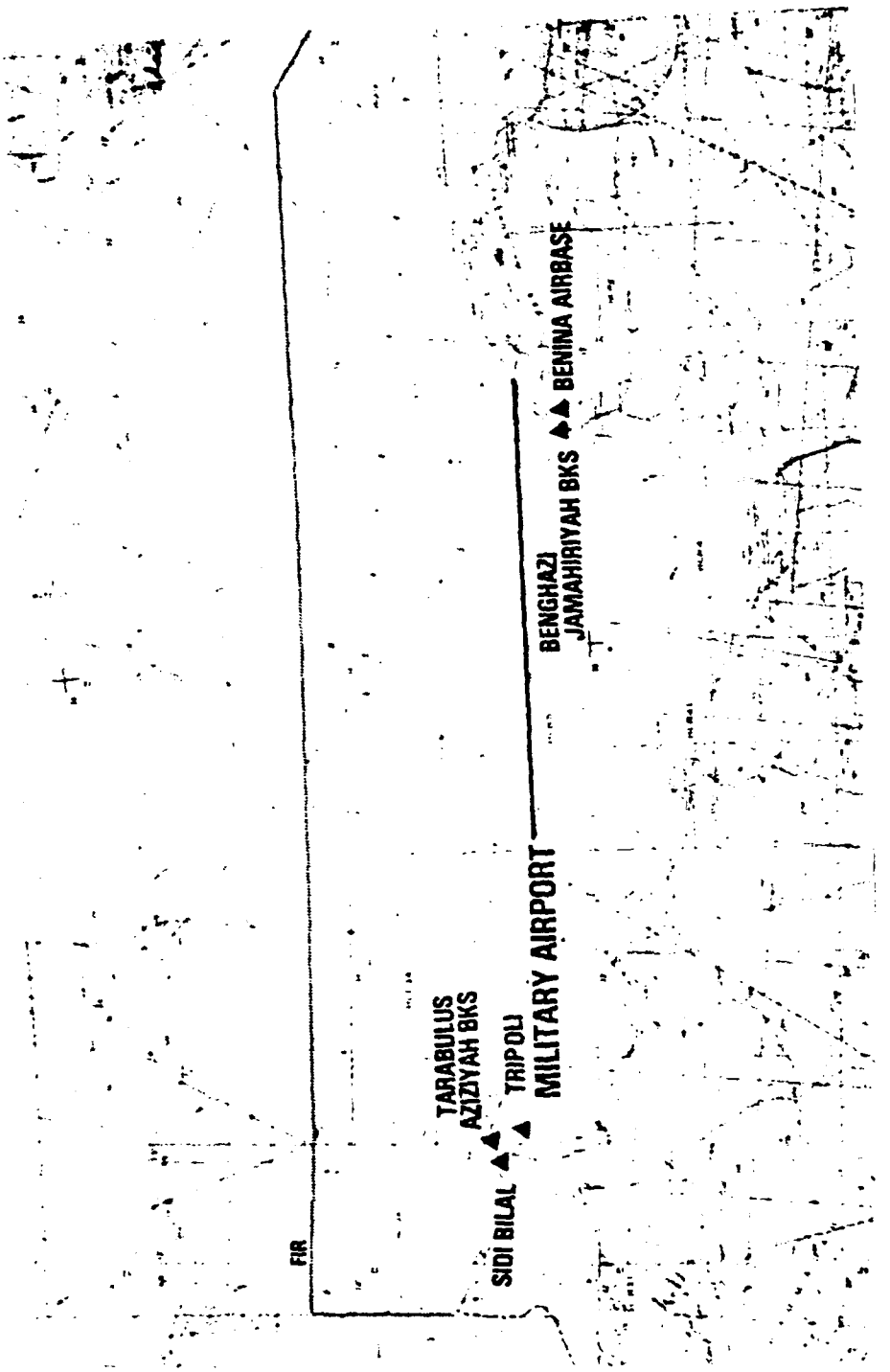


MAP 2
THE IRAN RAID39



MAP 3

THE GRENADA INVASION40



MAP 4a
THE LIBYAN RAID41

MAP 4b
THE LIBYAN RAID4C

ENDNOTES

1. United States Joint Chiefs of Staff, JCS PUB 6-0 (Working Draft) Doctrine For C3 Systems Support of Joint Operations, Washington, D.C., 1 August 1988, p. iv.

The same definition will appear in JCS PUB 3-0 (Draft) Doctrine For Joint Operations, Washington, D.C., April 1989, according to LTC Tom Smith (Joint Doctrine Development Office, Combined Arms Center, Ft. Leavenworth, Ks.) in a discussion on 21 April 1989.

2. Diane E. Byrd, Command and Control Considerations For Field Army Operations: A Primer on Joint Operations, Ft. Leavenworth, Ks.: School of Advanced Military Studies, [illegible] 1986, p. 4.

3. United States Joint Chiefs of Staff, JCS PUB 1 The DOD Dictionary of Military and Associated Terms, Washington, D.C., 1 June 1987, p. 199.

4. Ibid., p. 77 and 80. The word joint in parenthesis has been added by the author.

5. Ibid., p. 201.

6. United States Army, FM 100-5 Operations, Washington, D.C., 5 May 1986, p. 9.

7. Ibid., p. 22.

8. Roy Rowan, The Four Days of Mayaguez (New York, N.Y.: W.W. Norton & Co Inc., 1975), p. 66.

9. Donald E. Carlile, LTC, USA, "Mayaguez Incident," Military Review, October 1976, p. 4.

10. The casualty reports and estimated cost in dollars are taken from:

James E. Smith, LTC, USAF, The Mayaguez Incident, Maxwell Air Force Base, Al.: Air War College, 1976, pp. 56-59.

11. The Navy chain of command is not clearly established in any sources used by the author. However, after reading all the sources listed in the bibliography it appears that it is likely the Navy established ComDesRon 31 as the "on scene" Navy commander for naval surface forces in the vicinity of Koh Tang island. It is not clear what authority he had, if any, to direct naval air assets in the area. It is clear that CINCPAC retained command of the USS Coral Sea Carrier Task Group through the 7th Fleet. Although no evidence was uncovered to reveal the command relationship between the USS Coral Sea Carrier Task Group and Commander USSAG/7th AF on scene commander , it is likely that the carrier task group

was "In Support Of" the on scene commander. Pieces of this command arrangement appear in various sources, however the best evidence is that provided by the skipper of the USS Holt in the following article:

J.A. Messegee,Cdr,USN, Robert A. Petersen,Cdr,USN, J. Michael Rodgers,Cdr,USN, J.B. Hendricks,Maj,USMC, Walter J. Wood,Cpt,USMC, "Mayday for the Mayaguez", U.S. Naval Institute Proceedings, November 1976, p. 97.

12. The description of the Mayaguez Incident and operation is based on various sources, all of which are listed in the bibliography.

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17. J.H. Holmes, Operation Urgent Fury: Intervention In Grenada (A Case Study In Crisis Decision Making and The Political Use of Force), Washington, D.C.: National War College, March 1984, p. 31.

18. John C. Race Jr.,MAJ, Grenada: Command and Control Lessons Learned In Operation Urgent Fury, Newport, R.I.: Naval War College, 18 Feb 1987, p. 5.

19. Casualty figures are taken from:

Daniel P. Bolger,CPT,USA, "Operation Urgent Fury and Its Critics", Military Review, July 1986, p. 58 and John W. Vessey Jr.,GEN,USA, "JCS Replies to Criticism of Grenada Operation", Army, August 1984, p. 37.

20. United States Army, Training and Doctrine Command Operation Urgent Fury Assessment, Ft. Leavenworth, KS.: Combined Arms Center, 9 March 1988, p. v-1.

21. Ibid., p. v-9. This command structure is taken from an unclassified portion of the TRADOC assessment and from:

Lee E. Russell and M. Albert Mendez, Grenada 1983. London: Osprey Publishing, 1985, p.7 and Ronald H. Spector,LTC,USMC, U.S. Marines In Grenada 1983, Washington, D.C.: History & Museums Division HQ, USMC, 1987, pp.5 & 21. The command relationships that existed between COMJTF 120, the supporting carrier battle group and the supporting Air

Force F-15 Wing have not been uncovered during the author's research. An assumption that the naval forces remained "In Support Of" is probably a good one. However, this is tricky because Admiral Metcalf as the Commander Second Fleet would have command authority over the Carrier Battle Group anyway, at least as long as it remained in LANTCOM 's geograpnic area of responsibility. Thus, Admiral Metcalf was probably his own naval component commander. Army and Air Force component commanders were not used.

22. TRADOC Operation Urgent Fury Assessment, p. v-10.

23. The description of the Grenada Invasion, Operation Urgent Fury is taken from various sources, all of which are listed in the bibliography.

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25. John Burlage, "U.S. Asserts Right of Free Navigation", Air Force Times, 7 April 1986, p. 37.

26. Tim Zimmermann, "The American Bombing of Libya", Survival, May/June 1987, p. 206.

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30. Stephen E. Anno,COL,USAF, and William E. Einspahr,LTC,USAF, Command and Control and Communications Lessons Learned: Iranian Rescue, Falklands Conflict, Grenada Invasion, Libya Raid, Maxwell AirForce Base, Al.: Air War College, May 1988, pp. 55 and 61.

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